

# Job Title: Associate Professor in networking

TELECOM SudParis hires an associate professor (M/F) in the networks and communication services department, in Evry. We are seeking a highly qualified candidate with a demonstrated experience in teaching and research, in the area of broadband networks and associated services.

One of the specific objectives of this position is to support the scientific and experimental development of the optical networks platform currently being deployed in the school. It will contribute to the IMT strategic objective of developing research platforms (IMT 2022 platforms), sustainable through a recurrent stream of income, supporting research, innovation and transfer to industry. The position will contribute to the strategic line "digital transition / network and Internet of Things". It can also contribute to the strategic lines "industrial transition" or "energy, ecology and urban transition", if the candidate can describe a clear articulation between the platform and the proposed research project.

Teaching: the candidate must have teaching experience in the networking domain, preferably at the L3/M2 level. He will teach and organize basic and advanced courses and labs in the networking domain (including classes on IP networks, network models, network architectures), for the engineering curriculum, as well as for professional education.

Research: the candidate must describe an integration project in the area of broadband networks and associated services, supporting with the THD team the scientific development of the platform (described at : <u>http://www.telecom-sudparis.eu/recherche/plateformes-recherche/</u>). The research topics can cover multiple themes, for example the management of virtualized infrastructures, the radio-broadband convergence, the deployment of new applications of services relying on broadband access (smart cities, industry 4.0, e-health, energy, connected vehicles, etc.). He will be active in the elaboration and realisation of national (ANR) and European research projects and industry-funded activities. An international experience is desirable.

#### **Missions:**

- Teaching in the field of networks at Bachelor (L3) and Master levels in the engineering program of Télécom SudParis including the professional curriculum (FIPA) and co-accredited Master courses of the Université Paris Saclay and NU.
- Develop a research activity in the domain of broadband networks and associated services, to contribute to the development of the platform. The candidate may formulate proposals for example in one or several of the following domains (open list): broadband networks architectures, management of broadband networks and services, quality of service, multimedia services,), network evolutions such as Software Defined Networking (SDN) and OpenFlow, Network Function Virtualisation, etc.
- Be active in developing industrial and academic partnerships in the domain of broadband networks and services, focusing on industrial partnerships to develop the activities of the platform and obtain sustainable resources to support the deployment of broadband networks.
- Be an active member of the SAMOVAR laboratory.

#### **Teaching activities:**

The candidate will

- Teach and organize classes and practicals in the field of networking for L3 /M2 engineering students and for students in the apprentice program (FIPA). Courses include practical implementations and educational projects.
- Participate in the definition and organization of a new third year program for engineers, in partnership with industry and with the apprenticeship program.
- Participate in professional education activities, with respect to the programs managed by the department (RS and SSR professionals masters), the Cisco academy and the coordination of the RS programm.
- Participate in education-related activities: student projects, internships management, defences, etc.
- Select student candidates for the engineering and apprenticeship programs

### **Research activities:**

The candidate will

- Conducts research projects and technology transfer in the domain of broadband networks and services. The position includes the management of industrial projects, student projects, doctoral students and research engineers.
- Maintains a scientific publication level that ensures integration within the SAMOVAR laboratory (CNRS UMR 5157).
- Defines and participates to existing collaborative research projects and respond to public calls from national and European research agencies., as well as build and develop industrial partnerships.
- Contributes to the broadband networks platform at Télécom SudParis, specially through scientific and technology contributions, in order to develop its experimental capabilities.

#### Job requirement :

The desired candidate has a solid background in computer science and networks, with highlights in communication systems. The core required competencies will cover one or more of the following areas :

- Broadband networks : architecture, deployment, management, network function virtualization (NFV), software defined networking (SDN), Internet of Things.
- Optical infrastructures for broadband networks (FTTH).
- TCP/IP networks: architecture, routing, deployment, management
- Advanced services for broadband networks: service architectures, quality of service, service engineering, advanced protocols, networks and data analytics, etc.
- Virtualized infrastructures for networks and services: OpenFlow, Openstack, etc.
- Models and methods: simulation, complex systems, integer linear programming (ILP), machine learning, etc.

Moreover the successful candidate will have:

- Experience in teaching and research.
- Good knowledge of Information and Communication Technologies.
- Oral and written French and English
- Participation to the scientific community initiatives (conference program committees, conference organization, industry relations, ...)

#### Qualities and abilities:

• Efficient team work

- Excellent oral and written communication
- Pedagogical qualities and ability to get along with other people
- Management and organization

# Qualifications:

• PhD

# Prior experience:

- Research and teaching experience of at least two years
- Publication record matching the requirements of the SAMOVAR laboratory (CNRS UMR 5157).
- International professional experience (PdD, post-doc or equivalent) of at least two years is a plus
- Work experience in two different research team, possibly including a team within Télécom SudParis, demonstrated through co-authorship of publications.
- Participation in projects between academic research and industry
- CNU qualification is not required for international candidates

### Location:

Evry (France), 30 kms south of Paris, and Palaiseau (contribution to the activities of Télécom SudParis within University Paris-Saclay) Entity/department: Networks and communication services Department of TELECOM SudParis (RST, <u>http://www.telecom-sudparis.eu/rst/</u>)

# Position:

Permanent position

# **Research environment:**

A general description is available on the site <u>www.telecom-sudparis.eu</u>, more questions will be answered by email

# **Recruitment foreseen date:**

September 2018

# Salaries:

See for details: www.institut-telecom.fr

# Contact:

Caroline COQUET e-mail: recrutements@tem-tsp.eu Please submit your application materials (cover letter, vitae or resume, 3 reference letters, and recent teaching evaluations)